

# Description of research group

## Research Group



*GD, Albano Researcher*



*G, Anzalone  
Researcher  
(fellow)*



*R, Gagliardo Researcher*



*AM, Montalbano  
Researcher*



*M, Profita Senior Researcher*

### *Innovative field of research:*

Applications of human pulmonary 3D models (organotypic cell cultures) in experimental and translational research (field lung physiopathology)

### *Partecipazione to IRIB projects*

- 1) CISAS Project (MIUR)
- 2) Metamorfosi, Project (MISE)

### *Partecipazione to IRIB-CNR Macroareas*

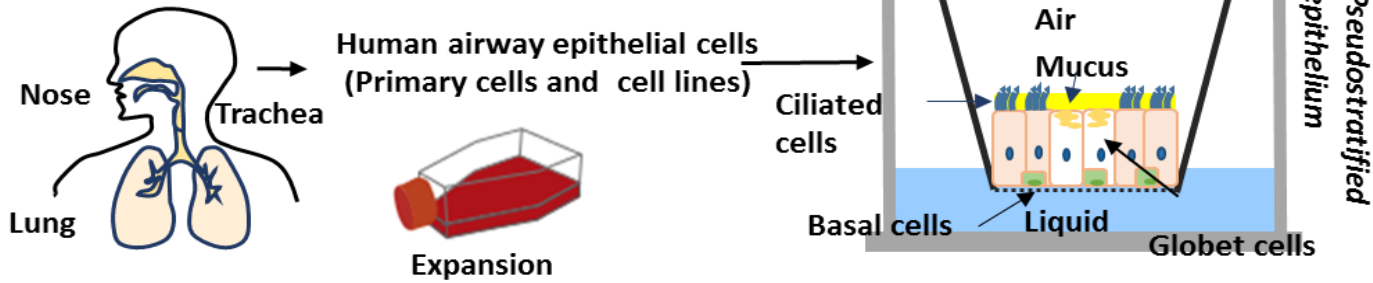
- 1) Environment, Immunity and Cancer
- 2) Translational Pneumology
- 3) Innovation, BioTechnologies and Engineering

### «Key words»

Airway diseases  
(Inflammation,  
Cancer),  
Immunopathology  
Pharmacology,  
Cellular/Molecular  
Mechanisms,  
Environmental  
Pollutants,  
Translational  
Medicine

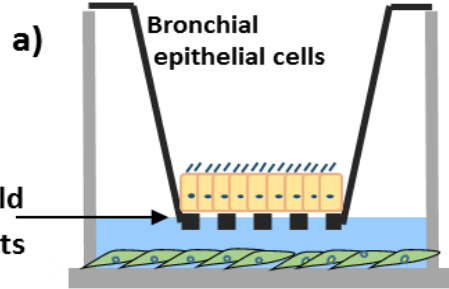
# Organotypic cell cultures of the lung (aims and perspectives)

## Air liquid interface culture

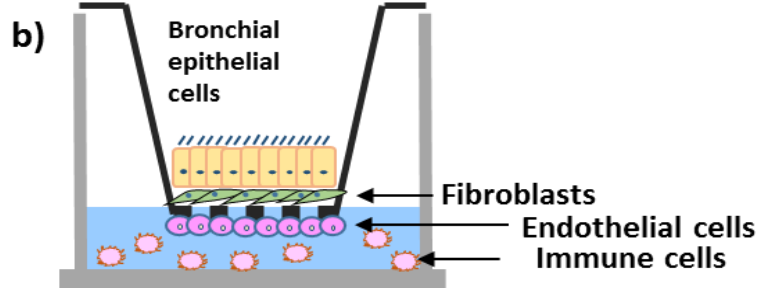


## Organotypic cell culture

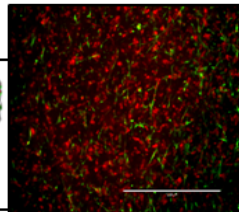
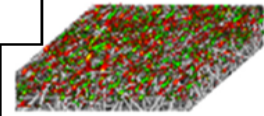
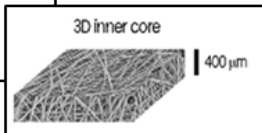
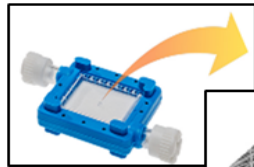
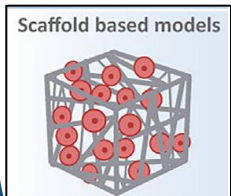
### Stromal epithelial model



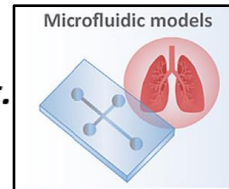
### Inflammatory signaling model



## 3D Bioreactor



*In vivo-like lung  
 microenvironment.*



### Aims:

Progresses in cell modeling by using primary human material to make translational research more efficient understanding of human lung disease

### Perspectives:

Such efforts combined with high quality techniques of lab (omics, imaging etc.) might increase the expansion of new methods into the scientific community and pharmaceutical industry.